1 2 3 CLAIMS What is Claimed is: An outward facing camera system comprising/ a plurality of equatorial cameras distributed 7 evenly about an origin in a plane; and 8 a plurality of polar cameras coupled to the 9 equatorial cameras and tilted above the plane. 10 11 2. The outward facing camera system of Claim 1, 12 wherein the equatorial cameras face radially outwards from 13 the origin. 14 15 The outward facing camera system of Claim 1, 16 wherein the polar cameras face radially outwards from the 17 18 origin. 19 The outward facing camera system of Claim 1, 20 wherein a first equatorial camera is offset approximately 90 21 22 degrees from a second equatorial camera. 23 The outward facing camera system of Claim 1, 24 wherein each equatorial camera is offset from an adjacent 25 equatorial camera by the same equatorial adjacent angle. 26 27 28 6. The outward facing camera system of Claim 1, wherein/each of the polar cameras is tilted out of the plane 29 by an /equatorial offset angle. 30 31

ER/T-008

7. The outward facing camera system of Claim 6 wherein
the equatorial offset angle is in the range of 52 to 76
degrees inclusive.

8. The outward facing camera system of Claim 1,
wherein the plurality of equatorial cameras outnumber the

9 9. The outward facing camera system of Claim 1,
10 wherein each of the polar cameras is separated by a polar
11 adjacent angle equal to approximately 120 degrees.

first plurality of polar cameras.

13 10. The outward facing camera system of Claim 1,
14 wherein a vertical field view of a first equatorial camera
15 is equal the vertical field view of a second equatorial
16 camera.

11. The outward facing camera system of Claim 1, wherein a horizontal field view of a first equatorial camera is equal the horizontal field view of a second equatorial camera.

12. The outward facing camera system of Claim 1, wherein a vertical field view of a first polar camera is equal the vertical field view of a second polar camera.

13. The outward facing camera system of Claim 1, wherein a horizontal field view of a first polar camera is equal the horizontal field view of a second polar camera.

The outward facing camera system of Claim 11 wherein a vertical field of view of a polar camera is equal 2 to the vertical field of view of a equatorial camera. 3 The outward facing camera system of Claim 1, 15. 5 wherein a horizontal field of view of a polar camera is 6 equal to the horizontal field of view of a equatorial 7 8 camera. 9 The outward facing camera system of Claim 1, 10 further comprising a polar camera coupled to the equatorial 11 cameras and tilted below the plane. 12 13 The outward facing camera, system of Claim 16, 14 wherein the polar camera is perpendicular to the plane. 15 16 The outward facing camera system of Claim 1, 17 18. further comprising a second plurality of polar cameras 18 coupled to the equatorial gameras and tilted below the 19 20 plane. 21 The outward/facing camera system of Claim 1, 22 wherein each of the equatorial cameras and each of the polar 23 cameras is a vide camera. 24 25 The dutward facing camera system of Claim 1, 26 27 wherein a polár camera has a vertical field of view which 28 overlaps a yertical field of view of an equatorial camera. 29 The outward facing camera system of Claim 1, 30 wherein/the plurality of polar cameras are tilted by the 31 same equatorial offset angle. 32

ERT-008

	/
1	
2	22. The outward facing camera system of Claim i,
3	having four equatorial cameras in the plurality of
4	equatorial cameras and three polar cameras in the first
5	plurality of polar cameras.
6	
7	23. The outward facing camera system of Claim 22,
8	further comprising a second plurality of three polar cameras
9	tilted below the plane.
10	
11	24. A outward facing camera system comprising:
12	a first camera;
13	a second camera coupled to and adjacent to the
14	first camera, wherein the first camera and the second
15	camera are offset by a first offset angle; and
16	a third camera coupled to and adjacent to the
17	first camera, wherein the first camera and the third
18	camera are offset by a second offset angle differing
19	from the first offset angle.
20	
21	25. The outward facing camera system of Claim 24,
22	wherein the first of set angle is approximately 90 degrees.
23	
24	26. The outward facing camera system of Claim 26,
25	wherein second offset angle is in the range of 52 to 76
26	degrees inclusive.
27	
28	27. The outward facing camera system of Claim 24,
29	further comprising a fourth cameras coupled to and adjacent
30	to the third camera; wherein the third camera and the fourth
31	camera are offset by a third offset angle.

The outward facing camera system of Claim 27, 1 wherein the third offset angle is approximately 120 degrees. 2 3 29. An outward facing camera system comprising: 4 a plurality of equatorial cameras distributed 5 evenly about an origin in a plane; and 6 a plurality of polar cameras in operative relation 7 8 to the equatorial cameras and tilted above the plane. 9 The outward facing camera system of Claim 29, 10 30. wherein the equatorial cameras fage radially outwards from 11 the origin. 12 13 The outward facing camera system of Claim 29, 14 31. 15 wherein the polar cameras face radially outwards from the origin. 16 17 The outward facing camera system of Claim 29, 18 32. further comprising a second plurality of polar cameras in 19 operative relation to the equatorial cameras and tilted 20 below the plane. 21 22

ERT-008 21